

be remanded to the limbo of unscientific methods. The problem that is now presenting itself to North American workers in systematic botany lies behind all systematic botany, and considers geographical distribution. But no study of this subject can be made at long range or by the most persistent study of the disjointed facts at our command.

It is time that botanists bestir themselves in the matter and consider the organization of a regular biological survey, that will deal with plants as biological problems and not merely as specimens to be catalogued. The money which is now expended for botanical exploration could be made to serve handsomely in starting such a systematic survey. It is no special credit to American botany that a zoologist who is working in this systematic fashion can find no help from botanists, but is compelled to combine a botanical survey with his own. Not that the two departments should be worked separately, for a biological survey must include both, but the point is made that botanists should do their share. Dr. Merriam is to be thanked for his example, and he would only feel that it was facilitating his work if botanical explorations could be converted into biological surveys.

BRIEFER ARTICLES.

The translation of Hackel's "True Grasses."—This work received a notice in your journal for August, by Mr. Theo. Holm. As to the translation I have no doubt that it is faithfully executed, and that it is accurate, clear and scientifically correct. For students of grasses this work must possess great interest and value. The illustrations are excellent and will be a great aid to the understanding of the technical descriptions. While this work can not, perhaps, be excelled as a synopsis of all known genera of grasses, it may be a question whether a reduction and modification of it adapted to the United States or to North America would not be more generally useful in this country. Of 313 genera described, there are in this country, of native and introduced ones, only about 120 genera. The work of local students in identifying a grass would be much reduced if they only had occasion to take into view the genera proper to this country. True, the general range of each genus is stated, and the student can, when investigating a species, leave out of view those whose range is beyond the limits of our country. But there are some omissions in regard to range, etc., in consequence of which the student might fail to find what he wanted. I will refer to a few instances: on page 53, under the genus *Rottboellia*, sub genus 1, it is said, "species twenty in the tropics of both hemispheres." Our species might be overlooked from this statement, one ranging as far north as Delaware, and another as far as eastern Arkansas. On the same page under the subgenus *Hemarthria* nothing is said of its extension to Texas, where the species *fasciculata* is abundant in some localities.

In the genus *Andropogon* are included, as sections or subgenera, some grasses which have been known as genera, and here some confusion may arise for the student—on page 61 the subgenus *Chrysopogon* does not, as might be supposed, include our species known as *Chrysopogon nutans* and *C. secundum*, these being by Mr. Hackel placed in the subgenus *Sorghum* although they are not specifically mentioned. The *Sorghum secundum* Chap. is called by Mr. Hackel in his monograph of *Andropogoneæ*, page 533, *Andropogon unilaterale*—the name *secundum* being appropriated by the *A. secundus* Willd., now, however, made a synonym of *A. contortus* Linn. Again on page 63, under subgenus *Heteropogon*, there are “5 species in the tropics, one of which is cosmopolitan as far north as South Europe and North America.” No mention is here made of the *Andropogon melanocarpus* Ell. (*Heteropogon acuminatus* Trin.) which is found as far north as North Carolina. This omission is not, however, a fault of the translators, but might have been corrected by a note. On page 74, under *Eriochloa* it is said, “five species, in the tropical and subtropical zones of both hemispheres.” Two or three at least of the species extend into the temperate zone, one as far as southern Kansas. On page 110, of the genus *Thurberia* it is said “species two, Arkansas and Texas.” The range should be extended to Florida, and I think there is but one species. The genus *Calamagrostis* is here made to include *Deyeuxia* as a section, but the section *Calamovilfa* Gray, is raised to generic rank. Some botanists will prefer to retain it as placed by Dr. Gray, and to add to it a third Floridan species *C. Curtisii* Vasey (published as *Ammophila Curtisii* Vasey.)

These instances do not materially detract from the high value of the work, but are referred to to indicate a few points in which some additional editorial notes would have been an improvement.

The remarks made in the volume, respecting the habits and economic and medicinal uses of certain grasses, are of great interest and value. Those respecting the different varieties of the cultivated *Sorghum* (*Andropogon arundinaceus* Scop.) are especially interesting, although many will prefer to keep *A. halapensis* Sibth. as a distinct species. The notes on *Saccharum*, on sections *Eupanicum*, *Setaria* and *Pennisetum* are also interesting. The adoption of the genus *Zizaniopsis* for *Zizania miliacea* Michx. will be acceptable to botanists. The species seems to be rare in the northern states, although it is recorded in Gray's Manual from Ohio and doubtfully from Penn. The notes relating to the history of our cultivated cereals are very valuable.—GEO. VASEY, *Washington, D. C.*

***Pithecolobium Texense* Coulter.**—In studying the material of Nealey's Texan collection (*Contr. Nat. Herb.* 2. 37) I was forced into *Pithecolobium* by indisputable floral characters, at the same time recognizing the exact similarity in every other respect to what has been called *Acacia flexicaulis* from the same region. Strangely enough, the status of